

Jeff Forcier
Paul Bissex
Wesley Chun



Covers
Django 1.0

Python Web Development with **Django®**

Developer's Library



Python Web Development with Django®

Python Web Development with Django

Table of Contents

Table of Contents

Introduction

Where Web Frameworks Come From

A Better Way

Were Not in Kansas Anymore

Web Development Is Better with Python and Django

I: Getting Started

1 Practical Python for Django

Python Skills Are Django Skills

Getting Started: Python's Interactive Interpreter

Python Basics

Python Standard Types

Flow Control

Exception Handling

Files

Functions

Object-Oriented Programming

Regular Expressions

Common Gotchas

Coding Style (PEP 8 and Beyond)

Summary

2 Django for the Impatient: Building a Blog

Creating the Project

Table of Contents

- Running the Development Server
- Creating the Blog Application
- Designing Your Model
- Setting Up the Database
- Setting Up the Automatic admin Application
- Trying Out the admin
- Making Your Blogs Public Side
- Finishing Touches
- Summary

3 Starting Out

- Dynamic Web Site Basics
- Understanding Models, Views, and Templates
- Overall Django Architecture
- Core Philosophies of Django
- Summary

II: Django in Depth

4 Defining and Using Models

- Defining Models
- Using Models
- Summary

5 URLs, HTTP Mechanisms, and Views

- URLs
- Modeling HTTP: Requests, Responses, and Middleware
- Views/Logic
- Summary

6 Templates and Form Processing

- Templates
- Forms

Table of Contents

Summary

III: Django Applications by Example

7 Photo Gallery

The Model

Preparing for File Uploads

Installing PIL

Testing ImageField

Building Our Custom File Field

Using ThumbnailImageField

Setting Up DRY URLs

The Item Apps URL Layout

Tying It All Together with Templates

Summary

8 Content Management System

Whats a CMS?

The Un-CMS: Flatpages

Beyond Flatpages: A Simple Custom CMS

Possible Enhancements

Summary

9 Liveblog

What Exactly Is Ajax?

Planning the Application

Laying Out the Application

Putting the Ajax In

Summary

10 Pastebin

Defining the Model

Creating the Templates

Table of Contents

- Designing the URLs
- Trying It Out
- Limiting Number of Recent Pastes Displayed
- Syntax Highlighting
- Cleanup Via Cron Job
- Summary

IV: Advanced Django Techniques and Features

11 Advanced Django Programming

- Customizing the Admin
- Using Syndication
- Generating Downloadable Files
- Enhancing Django's ORM with Custom Managers
- Extending the Template System
- Summary

12 Advanced Django Deployment

- Writing Utility Scripts
- Customizing the Django Codebase Itself
- Caching
- Testing Django Applications
- Summary

V: Appendices

A: Command Line Basics

- Putting the Command in Command Line
- Options and Arguments
- Pipes and Redirection
- Environment Variables
- The Path
- Summary

Table of Contents

B: Installing and Running Django

Python

Django

Web Server

SQL Database

Summary

C: Tools for Practical Django Development

Version Control

Project Management Software

Text Editors

D: Finding, Evaluating, and Using Django Applications

Where to Look for Applications

How to Evaluate Applications

How to Use Applications

Sharing Your Own Application

E: Django on the Google App Engine

Why the App Engine Matters

Pure Google App Engine Applications

Limitations of the App Engine Framework

Google App Engine Helper for Django

Integrating the App Engine

Creating a New Django Application That Runs on App Engine

Summary

Online Resources

F: Getting Involved in the Django Project

Index

Colophon